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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of: McLeod

Serial No.: 10/699,956

Confirmation No.: 5094

Filed: November 3, 2003

For: Increasing Syndiotactic Propylene  
Polymer Cast Film Line Speed

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§ Group Art Unit: 1732  
§  
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§ Examiner: Vargot  
§  
§ Docket No.: COS-926  
§  
§ Customer No.: 25264  
§

Mail Stop Appeal Brief-Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Honorable Commissioner:

CERTIFICATE OF MAILING	
37 CFR 1.80	
I hereby certify that this correspondence is being deposited with the United States Postal Service as <i>First Class</i> Class Mail in an envelope addressed to: Mail Stop Appeal Brief-Patents, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.	
<u>11/08/2005</u> Date	<u><i>Lenora Evans</i></u> Signature

TRANSMITTAL LETTER AND FEE AUTHORIZATION

In connection with the above-identified application, Applicants respectfully submit the following documents:

1. Appeal Brief.

The Commissioner is authorized to charge the fee of \$500.00, along with any additional fees that may be required for this submission, or credit any overpayments, to Deposit Account No. 03-3345.

Respectfully submitted,

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directly affect, be directly affected by or have a bearing on the Board's decision in the pending appeal.

### **Status of Claims**

Claims 43-71 are pending in the application. Claim 53 stands rejected under 35 U.S.C. §112, second paragraph. Claims 43-44, 48, 52-53, 56, 64 and 66-71 stand rejected under 35 U.S.C. §102(b) and claims 45-47, 49-51, 54-55 and 57-63 stand rejected under 35 U.S.C. §103(a). The rejection of the pending claims is appealed. The pending claims are shown in the attached Appendix A.

### **Status of Amendments**

Claims 43-71 were submitted to replace original claims 1-36. No amendments have been made to the pending claims.

### **Summary of the Invention**

The unique characteristics of syndiotactic polypropylene (sPP) not only make it useful in film formation, but also present unique processing challenges. In particular, processing sPP under conditions normally associated with processing isotactic polypropylene (iPP) may be problematic because molten sPP is tackier than molten iPP. *See*, specification, at least paragraph 5. The embodiments recited in the pending claims generally provide a process of sPP film formation.

### **Issues Presented**

1. Whether the Examiner erred in rejecting claims 43-44, 48, 52-53, 56, 64 and 66-71 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,245,857 (*Shamshoum*) on grounds that *Shamshoum* does not show a syndiotactic polypropylene film, as recited in the pending claims.

2. Whether the Examiner erred in rejecting claims 45-47, 49-51, 54-55, 57-63 and 65 under 35 U.S.C. §103(a) as being unpatentable over *Shamshoum* on grounds that *Shamshoum* does not teach, show or suggest a syndiotactic polypropylene film, as recited in the pending claims.

## Arguments

**I. THE EXAMINER ERRED IN REJECTING CLAIMS 43-44, 48, 52-53, 56, 64 AND 66-71 UNDER 35 U.S.C. §102(b) AS BEING ANTICIPATED BY *SHAMSHOUM* BECAUSE *SHAMSHOUM* DOES NOT SHOW A SYNDIOTACTIC POLYPROPYLENE FILM**

*Shamshoum* teaches highly isotactic polypropylene (iPP) films. Such films may incorporate a small amount (from about 0.01% to about 30%) of syndiotactic polypropylene (sPP) to reduce the brittleness of the iPP. *See*, column 2, at least lines 25-30. However, *Shamshoum* clearly teaches iPP film formation. *Shamshoum* (as is known in the art) defines the term iPP film as a film in which the majority of the polyolefin composition is highly isotactic polyolefin. *See*, column 2, at least lines 30-35.

In contrast, the present claims recite a “homopolymer of syndiotactic propylene (sPP) film”. *See*, at least claim 71. The films enabled by the present specification are syndiotactic polypropylene films. *See*, specification, at least paragraphs 11 and 14. Accordingly, it is widely recognized in the art that sPP films are films in which the majority of the polyolefin composition is syndiotactic polypropylene. As discussed above, *Shamshoum* does not teach, show or suggest syndiotactic polypropylene films.

Therefore, reversal of the rejection is respectfully requested.

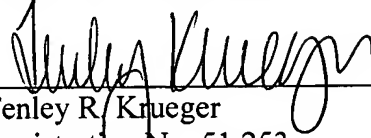
**II. THE EXAMINER ERRED IN REJECTING CLAIMS 45-47, 49-51, 54-55, 57-63 AND 65 UNDER 35 U.S.C. §103(a) AS BEING UNPATENTABLE OVER *SHAMSHOUM* BECAUSE *SHAMSHOUM* DOES NOT TEACH, SHOW OR SUGGEST**

The Examiner set forth the same arguments for the §103(a) rejection as the §102(b) rejection. Applicants distinguished *Shamshoum* from the pending claims in the above discussion and feel that repeating such arguments is unnecessary. Based on such previously presented arguments, Applicants respectfully request reversal of the rejection.

### Conclusion

In conclusion, *Shamshoum* nowhere teaches or suggests syndiotactic polypropylene films, such as recited in the pending claims. Thus, Applicants respectfully request reversal of the rejections of claims 43-71.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Tenley R. Krueger", is written over a horizontal line.

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## **Appendix A**

### *Pending Claims*

43. A method comprising:  
casting a film comprising a homopolymer of syndiotactic propylene (sPP) at a film line speed of from about 35 to about 200 feet per minute.
43. The method of Claim 43, wherein the film line speed is from about 70 to about 150 feet per minute.
44. The method of Claim 43 wherein the film line speed is from about 90 to about 120 feet per minute.
45. The method of Claim 43 further comprising maintaining a casting temperature of less than about 430 degrees Fahrenheit.
46. The method of Claim 43 further comprising maintaining a casting temperature of less than about 350 degrees Fahrenheit.
47. The method of Claim 43 further comprising maintaining a casting temperature of less than about 300 degrees Fahrenheit.
48. The method of Claim 43, wherein the casting occurs on a cast roll and wherein the cast roll is maintained at a temperature of from about 50 to about 130 degrees Fahrenheit.
49. The method of Claim 48, wherein the cast roll is maintained at a temperature of from about 70 to about 120 degrees Fahrenheit.
50. The method of Claim 48, wherein the cast roll is maintained at a temperature of from about 90 to about 110 degrees Fahrenheit.

51. The method of Claim 43, wherein the sPP comprises a peak melt temperature of from about 120 to about 140 degrees Celsius.

52. The method of Claim 43 further comprising adding a processing aid to the sPP prior to casting.

53. The method of Claim 52, wherein the concentration of the processing aid in the sPP is from about 0 to about 3,000 parts per million by weight of sPP.

54. The method of Claim 52, wherein the concentration of the processing aid in the sPP is from about 100 to about 1,500 parts per million by weight of sPP.

55. The method of Claim 52, wherein the concentration of the processing aid in the sPP is from about 900 to about 1100 parts per million by weight of sPP.

56. The method of Claim 52, wherein the processing aid comprises a fluoropolymer.

57. The method of Claim 52, wherein the processing aid comprises a fluoroelastomer.

58. The method of Claim 52, wherein the film comprises a coefficient of friction of less than about 1.0.

59. The method of Claim 52, wherein the film comprises a coefficient of friction of less than about 0.7.

60. The method of Claim 52, wherein the film comprises a coefficient of friction of less than about 0.4.

61. The method of Claim 52, wherein the film comprises a maximum tensile strength of at least about 4,200 pounds per square inch.

62. The method of Claim 52, wherein the film comprises a maximum tensile strength of at least about 5,000 pounds per square inch.

63. The method of Claim 52, wherein the film comprises a maximum tensile strength of at least about 6,000 pounds per square inch.

64. The method of Claim 52, wherein a haze of the film is greater than about 10 percent.

65. The method of Claim 52, wherein a 20 degree gloss of the film is less than about 20 percent.

66. The method of Claim 52, wherein a 45 degree gloss of the film is less than about 90 percent.

67. The method of Claim 52, wherein a percent elongation of the film is less than about 600 percent.

68. The method of Claim 43, wherein the film is from about 0.5 to about 6 mils thick.

69. The method of Claim 43, wherein the film is from about 1 to about 5 mils thick.

70. The method of Claim 43, wherein the film is from about 2 to about 4 mils thick.

71. A homopolymer of syndiotactic propylene (sPP) film cast at from about 35 to about 200 feet per minute.